



# AQUARIUS PLUS 2



Water cooled water chillers with semi hermetic screw compressors and R134a  
Nominal cooling capacity 464 – 1943 kW



Best performance and maximum reliability.

The Aquarius Plus 2 water cooled screw chillers are the best solution for large process cooling applications when requirements are reliability and performances. They are designed to meet market requirements in terms of versatility and energy efficiency. Stepless cooling capacity regulation, electronic expansion valves and high efficiency heat exchangers with integrated heat recovery systems, contributes to obtain high performance both at full load and at partial load with exceptional seasonal efficiency value.



Cooling, conditioning, purifying.

## Benefits

- High energy efficiency both at full load and at partial load;
- Stepless cooling capacity regulation with self-adaptive control;
- High precision and adaptability in cooling capacity regulation;
- Compressors minimum capacity step 25%;
- Heat exchangers with low water side pressure drops in order to save pumping costs;
- Low noise levels, thanks also to the availability of two different acoustic versions;
- Fully bundled heat recovery solutions;
- Condenser outlet water temperature up to 60 °C.

## Options

- Partial or total heat recovery;
- Compressors acoustical enclosure (super silent acoustic configuration);
- Shut-off compressors' valves on suction line;
- Soft starter device allows a reduction in mechanical stress for compressors start-up;
- Capacitors for compressors;
- Condensing control kit (with servo-driven modulating valves or pressure control valves);
- Flanges kit on evaporator;
- Flanges kit or Victaulic kit on condenser and total heat recovery.

## Standard features

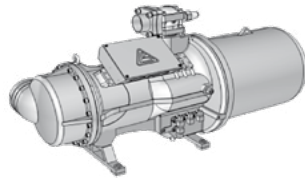
- Environmentally friendly refrigerant R134a with zero ozone depletion potential;
- High efficiency screw compressors with stepless regulation optimized for R134a refrigerant gas;
- Automatic circuit breakers for compressors;
- Compressor crankcase heaters;
- Check valve and shut-off valve on discharge line;
- Electronic expansion valves;
- Single pass shell & tubes heat exchangers optimized for R134a refrigerant gas;
- Electrical panel with numbered wires, forced ventilation and IP54 protection class;
- Phase monitor which provides protection against phase loss and phase reversal;
- Microprocessor electronic control xDRIVE with high computing capacity and user friendly interface, suitable for connection with supervisor system;
- RS485 interface for connection to ModBus supervisor systems;
- Ethernet connection featuring pre-programmed HTML supervision pages, allowing local or internet based visualization and modification of the operating parameters.

## Kits

- Antivibration mounting kit;
- Remote control kit;
- xWEB300D EVO supervision kit.



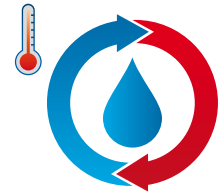
Semigraphic user interface with multifunctional buttons and dynamic display icons.



High efficiency screw compressors designed for R134a refrigerant gas.



The electronic expansion valve allows an improvement of performance.



Integrated partial or total heat recovery systems.

| Models AQP2                  |         | 1401              | 1601 | 1801 | 2001 | 2301 | 2601 | 3001 | 3301 | 2802 | 3202 | 3402 | 3602 | 4002 | 4302 | 4602 | 4902 | 5202 | 5602 | 6002 | 6602 |     |
|------------------------------|---------|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| Nominal cooling capacity (1) | kW      | 355               | 413  | 472  | 520  | 582  | 641  | 706  | 759  | 725  | 831  | 889  | 938  | 1039 | 1098 | 1181 | 1230 | 1279 | 1358 | 1412 | 1497 |     |
| Total absorbed power (1)     | kW      | 72                | 80   | 92   | 100  | 112  | 123  | 134  | 143  | 143  | 159  | 171  | 183  | 198  | 209  | 223  | 233  | 244  | 256  | 268  | 288  |     |
| EER (2)                      |         | 4,92              | 5,19 | 5,15 | 5,22 | 5,20 | 5,23 | 5,28 | 5,30 | 5,06 | 5,24 | 5,21 | 5,13 | 5,24 | 5,24 | 5,30 | 5,27 | 5,24 | 5,29 | 5,28 | 5,20 |     |
| SEPR HT (3)                  |         | 6,89              | 7,77 | 7,79 | 7,82 | 7,84 | 7,90 | 7,99 | 8,02 | 7,74 | 7,89 | 7,85 | 7,81 | 7,90 | 7,94 | 7,98 | 7,97 | 7,97 | 7,99 | 8,00 | 7,87 |     |
| Nominal cooling capacity (4) | kW      | 464               | 541  | 617  | 681  | 762  | 835  | 923  | 994  | 934  | 1080 | 1157 | 1216 | 1355 | 1432 | 1542 | 1601 | 1659 | 1765 | 1830 | 1943 |     |
| Total absorbed power (4)     | kW      | 78                | 86   | 99   | 108  | 121  | 132  | 144  | 154  | 154  | 170  | 184  | 197  | 214  | 225  | 240  | 251  | 263  | 277  | 288  | 311  |     |
| EER (5)                      |         | 5,94              | 6,29 | 6,22 | 6,31 | 6,30 | 6,31 | 6,40 | 6,44 | 6,07 | 6,34 | 6,29 | 6,17 | 6,34 | 6,36 | 6,42 | 6,37 | 6,32 | 6,38 | 6,35 | 6,25 |     |
| Power supply                 | V/Ph/Hz | 400±10%/3 - PE/50 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |
| Circuits / Compressors       | N°      | 1/1               |      |      |      |      |      |      |      | 2/2  |      |      |      |      |      |      |      |      |      |      |      |     |
| Sound power (6)              | dB(A)   | 95                | 96   | 97   | 97   | 97   | 97   | 98   | 98   | 98   | 98   | 99   | 99   | 99   | 99   | 99   | 99   | 100  | 100  | 100  | 101  | 101 |
| Sound pressure (7)           | dB(A)   | 67                | 68   | 69   | 69   | 69   | 69   | 70   | 70   | 70   | 70   | 71   | 71   | 71   | 71   | 71   | 71   | 72   | 72   | 72   | 73   | 73  |
| Depth                        | mm      | 4344              | 4344 | 4326 | 4326 | 4326 | 4326 | 4334 | 4334 | 4966 | 4966 | 4920 | 4979 | 4982 | 4982 | 4982 | 4982 | 4982 | 5030 | 5030 | 5032 |     |
| Width                        | mm      | 1460              | 1460 | 1460 | 1485 | 1485 | 1460 | 1460 | 1460 | 1390 | 1390 | 1390 | 1390 | 1390 | 1390 | 1390 | 1390 | 1390 | 1390 | 1390 | 1390 |     |
| Height                       | mm      | 1640              | 1645 | 1721 | 1721 | 1645 | 1770 | 1819 | 1819 | 2165 | 2165 | 2165 | 2165 | 2278 | 2278 | 2278 | 2278 | 2278 | 2278 | 2278 | 2278 |     |
| Installed weight             | Kg      | 2154              | 2363 | 2695 | 2738 | 2781 | 3143 | 3288 | 3338 | 4294 | 4572 | 4878 | 5185 | 5736 | 5767 | 5802 | 5881 | 5961 | 6143 | 6295 | 6399 |     |

Data declared according to UNI EN 14511:2018. All data refers to standard units without accessories/options which require an electrical feeding source and in nominal working conditions.

- (1) Nominal cooling capacity and Nominal absorbed power: data referred to nominal conditions, evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C.
  - (2) EER: data referred to the full load functioning: evaporator water temperature IN/OUT 12/7 °C and condenser water temperature IN/OUT 30/35 °C.
  - (3) SEPR HT: Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products and high temperature process chillers.
  - (4) Nominal cooling capacity and Nominal absorbed power: data referred to nominal conditions, evaporator water temperature IN/OUT 20/15 °C and condenser water temperature IN/OUT 30/35 °C.
  - (5) EER: data referred to the full load functioning: evaporator water temperature IN/OUT 20/15 °C and condenser water temperature IN/OUT 30/35 °C.
  - (6) Sound power: determined on the basis of measurements taken in accordance with the standard ISO 3744.
  - (7) Sound pressure at 10 m: average value obtained in free field on a reflective surface at a distance of 10 m from the external side of the electrical panel of machine and at a height of 1.6 m from the unit support base. Values with tolerance ± 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions and with circulation pump.
- The listed noise levels, weights and dimensions refer to base units with no options fitted.



MTA is ISO9001 certified, a sign of its commitment to complete customer satisfaction.



MTA products comply with European safety directives, as recognized by the CE symbol.



MTA participates in the E.C.C. programme for LCP-HP. Certified products are listed on: [www.eurovent-certification.com](http://www.eurovent-certification.com) Certification applied to the units: - Air/Water up to 600 kW - Water/Water up to 1500 kW



EAC Declaration

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